



IAP6 Rec'd PCT/PTO 23 JUN 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/523,167      Confirmation No.: 8220  
Applicant(s): Borran et al.  
Filed: 03/10/2006  
Art Unit: 2617  
Examiner:  
Title: Method and Apparatus to Establish Constellations for  
Imperfect Channel State Information at a Receiver  
Attorney Docket No.: 873.0115.U1 (US)  
Customer No.: 29,683

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Request For Corrected Filing Receipt

Sir:

This is in response to the Filing Receipt (copy enclosed) received in regard to the above-identified patent application. The Filing Receipt contains an error.

The word "Constellations" is missing from the title. The correct title is:

Method and Apparatus to Establish Constellations for Imperfect Channel State Information at a Receiver

Please send the undersigned a corrected Filing Receipt.

Thank you.

Respectfully submitted,



Gerald J. Stanton (Reg. No. 46,008)

June 21, 2006

Date

**Customer No.: 29683**

Harrington & Smith, LLP

4 Research Drive

Shelton, CT 06484-6212

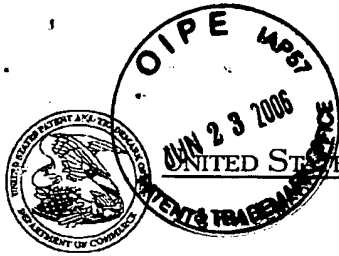
203-925-9400

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date shown below in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

6/21/2006  
Date

Lisa Mrozek  
Name of Person Making Deposit  
Lisa Mrozek



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/523,167	03/10/2006	2617	1780	873.0115.U1(US)	9	25	7

CONFIRMATION NO. 8220

29683  
 HARRINGTON & SMITH, LLP  
 4 RESEARCH DRIVE  
 SHELTON, CT 06484-6212

## FILING RECEIPT



\*OC000000018924401\*

Date Mailed: 06/01/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

## Applicant(s)

Mohammad Jaber Borran, San Diego, CA;  
 Ashutosh Sabharwal, Houston, TX;  
 Bahnaam Aazhang, Houston, TX;

**Power of Attorney:** The patent practitioners associated with Customer Number **29683**.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/IB03/02088 05/29/2003  
 which claims benefit of 60/393,083 07/01/2002

## Foreign Applications

**Projected Publication Date:** To Be Determined - pending completion of Security Review

**Non-Publication Request:** No

**Early Publication Request:** No

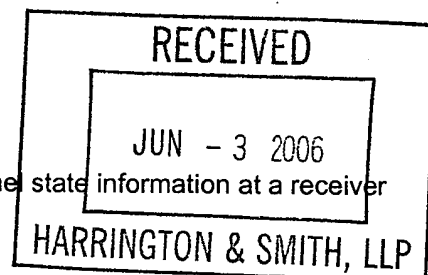
## Title

Method and apparatus to establish for imperfect channel state information at a receiver

## Preliminary Class

455

Constellations



## PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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UNITED STATES PATENT AND TRADEMARK OFFICE

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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/523,167	Mohammad Jaber Borran	873.0115.U1(US)

INTERNATIONAL APPLICATION NO.
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PCT/IB03/02088

I.A. FILING DATE	PRIORITY DATE
05/29/2003	07/01/2002

29683  
 HARRINGTON & SMITH, LLP  
 4 RESEARCH DRIVE  
 SHELTON, CT 06484-6212

CONFIRMATION NO. 8220

371 ACCEPTANCE LETTER



\*OC000000018924404\*

Date Mailed: 06/01/2006

### NOTICE OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C 371 AND 37 CFR 1.495

The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is ACCEPTED for national patentability examination in the United States Patent and Trademark Office.

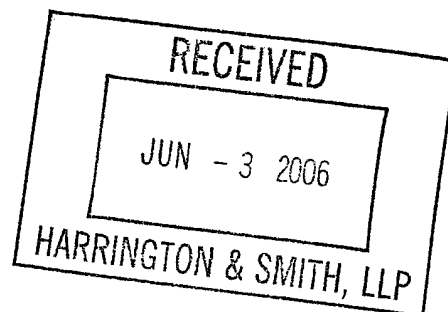
The United States Application Number assigned to the application is shown above and the relevant dates are:

<u>03/10/2006</u>	<u>03/10/2006</u>
DATE OF RECEIPT OF 35 U.S.C. 371(c)(1), (c)(2) and (c)(4) REQUIREMENTS	DATE OF COMPLETION OF ALL 35 U.S.C. 371 REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. **THE DATE APPEARING ON THE FILING RECEIPT AS THE " FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371 (c)(1), (c)(2) and (c)(4) REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE.** The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363). Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

The following items have been received:

- Copy of the International Application filed on 01/27/2005
- Copy of the International Search Report filed on 01/27/2005
- Copy of IPE Report filed on 01/27/2005
- Information Disclosure Statements filed on 01/27/2005
- Oath or Declaration filed on 03/10/2006
- U.S. Basic National Fees filed on 01/27/2005



Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed

to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

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FREDERICK SMITH

Telephone: (703) 308-9140 EXT 210

PART 1 - ATTORNEY/APPLICANT COPY

FORM PCT/DO/EO/903 (371 Acceptance Notice)